Xserve
User's Guide

Includes software configuration and problem solving information for the Xserve

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About This Guide

This user's guide shows you how to start up and shut down the Xserve, install and configure server software, monitor the status of the Xserve, and solve problems.

This guide contains information you might find useful after you install the Xserve:

- An overview of Xserve features, controls, and components, in Chapter 1
- Tips for configuring the Xserve when you start it up for the first time and instructions for routine startup and shutdown, in Chapter 2
- How to check the status of the Xserve, in Chapter 3
- How to update or install the server software, in Chapter 4
- Solutions to some common problems you might encounter while working with the Xserve and information about diagnostic software, in the Appendix

Remote Management and Lights-Out Operation

For information about remote server management, see the Server Monitor onscreen help.

Working with Mac OS X Server

As soon as you finish installing the Xserve, it's ready to host the variety of services provided by Mac OS X Server. To learn more about the server software, see *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve and the full set of server documents available at www.apple.com/server/documentation.

For More Information

For information about opening the Xserve and replacing components, see the printed *Xserve Setup Guide* that comes with the Xserve.

For information about configuring and using Mac OS X Server, see *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

The Apple Service & Support website offers in-depth product information and technical resources, including articles, discussions, and downloadable software updates. Visit the site at www.apple.com/support/xserve.

Xserve at a Glance

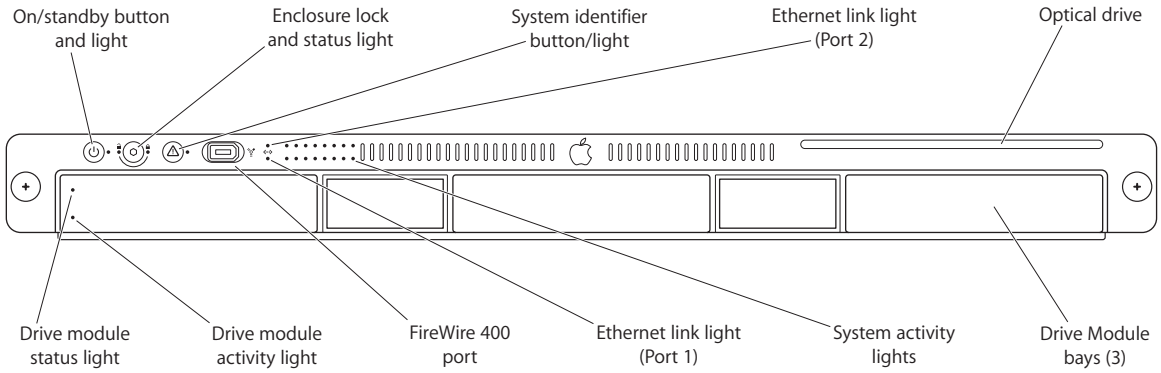
1

Use the illustrations in this chapter to become familiar with the basic controls, features, and components of the Xserve.

The illustrations on the following pages identify the Xserve controls, indicators, connectors, and other features.

Note: Some components of the Xserve may look slightly different from the illustrations shown here, depending on the configuration you purchased.

Xserve at a Glance—Front Panel



On/standby button and light
Press to turn on the Xserve. Press for approximately 5 seconds to force the Xserve to shut down if all other shutdown methods fail.

Enclosure lock and lock status light
The lock secures the Xserve cover and drive modules. It can be locked and unlocked with the enclosure key supplied with the Xserve.

An option in the Security pane of System Preferences lets you disable a connected keyboard and mouse when the enclosure is locked. When this option is enabled and the enclosure is locked (the light is on), the Xserve doesn't recognize a keyboard, mouse, or hot-pluggable storage device. Unlock the lock to use those devices.

System identifier button and light
The system identifier light flashes if a problem is detected. You can also turn it on or off manually by pressing the button, or turn it on remotely using Server Monitor. This indicator is useful for locating a particular unit in a rack with more than one Xserve. A second system identifier button and light are on the back panel.

You also use the system identifier button to select an alternative method for starting the Xserve using the front panel startup options; see "Choosing a Startup Method from the Front Panel" on page 12.

Ethernet link lights
Two lights indicate whether the Xserve is connected to an Ethernet network. Each light represents one of the two built-in Ethernet ports: the bottom light for port 1 and the top light for port 2.

Optical drive
You can use the slot-loading optical drive to install software on the Xserve.

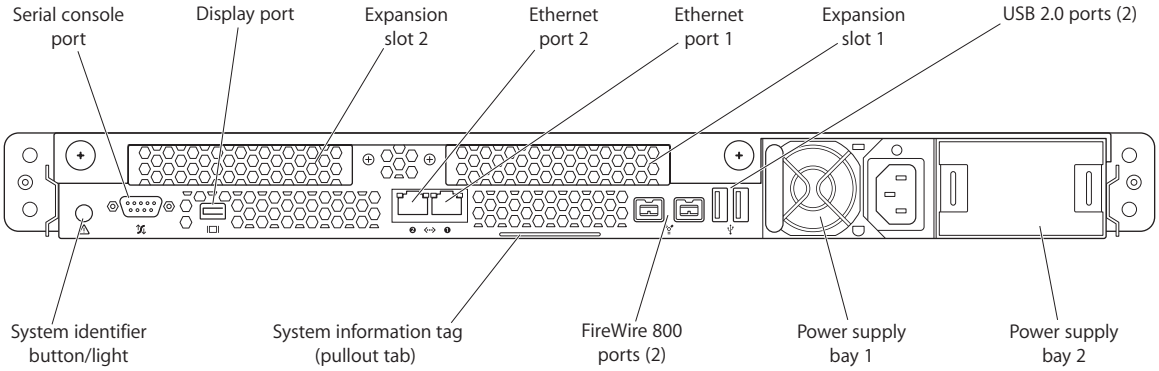
Drive modules and lights
You can install up to three Serial ATA (SATA) or Serial Attached SCSI (SAS) drive modules in the Xserve. These modules can be removed and installed while the Xserve is running. Each drive module has lights showing operating status and disk activity.

System activity lights
Four groups of four lights indicate system activity. Each group of four lights indicates the activity level of one of the processor cores.

You also use these lights to select an alternative method for starting the Xserve using the front panel startup options; see "Choosing a Startup Method from the Front Panel" on page 12.

FireWire 400 port
Provides a FireWire 400 connection on the front of the Xserve. There are also two FireWire 800 ports on the back panel. The enclosure lock must be unlocked for the Xserve to recognize some devices connected to these ports.

Xserve at a Glance—Back Panel



Serial console port
Connect a serial device or a computer with a serial port. This port supports RS-232 connections.

Display port
You can connect a display to the Xserve using this port. The Xserve comes with a VGA adapter cable. A DVI adapter is available separately.

Expansion slots
You can install two expansion cards in the Xserve. Slot 1 accepts either a PCI-E or a PCI-X card, depending on the riser you install. Slot 2 accepts PCI-E cards. For information about installing cards, see the printed *Xserve Setup Guide* that comes with the Xserve.

Gigabit Ethernet ports
Connect the Xserve to a high-speed Ethernet network using the two built-in Ethernet ports. Ethernet ports adjust automatically to the transmission speed supported by the network. A green light in the upper left corner of each port indicates whether that port is connected to a live Ethernet network; a blue light on the right indicates activity.

Always connect an Ethernet cable to the right port (port 1) first.

USB 2.0 ports
Connect USB devices, such as a keyboard or mouse. The enclosure lock must be unlocked for the Xserve to recognize devices connected to these ports.

Power supply and power supply bays
A removable power supply for the Xserve. The power cord connects here. You can install two power supplies for redundancy; either supply can take over the full load for the Xserve if the other supply fails or is removed.

FireWire 800 ports
Connect FireWire devices to the Xserve. A FireWire 400 port is also located on the front panel. The enclosure lock must be unlocked for the Xserve to recognize devices connected to these ports.

System information tag
The Xserve serial number and the hardware (MAC) addresses of its built-in Ethernet ports are printed on this pullout tab. You'll need the serial number when you install and set up the server software.

System identifier button and light
The system identifier light flashes if a problem is detected. You can also turn it on manually by pressing the button or turn it on remotely using Server Monitor. This indicator is useful for locating a particular unit in a rack with more than one Xserve. A second system identifier button and light are on the front panel.

Starting Up the Xserve

2

This chapter shows how to start up and shut down the Xserve, and includes information about configuring Mac OS X Server the first time you start up the Xserve.

Turning On the Xserve for the First Time

The first time you turn on the Xserve, Server Assistant asks for some basic information that Mac OS X Server needs in order to start up and connect to the network.

Configuring the Server Software

Be ready to provide at least the following information the first time you turn on the Xserve:

- A server administrator account name and password
- Your Mac OS X Server software serial number
- Basic network settings, including IP address, subnet mask, and DNS servers
- A user name, password, and network settings for the lights-out management processor
- Whether the Xserve will host an Open Directory domain, join an existing domain, or run standalone using its local directory

For a list of the information needed to fully configure the Xserve using the Setup Assistant, see the *Mac OS X Server Worksheet* on the Mac OS X Server installation disc or on the server documentation website at www.apple.com/server/documentation. For step-by-step instructions that guide you through the software setup process, see *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

Configuring the Lights-Out Management Processor

When you use the Server Monitor application to start up, shut down, or monitor an Xserve, you communicate with the lights-out management processor in the Xserve. The lights-out management processor has its own administrator user name, password, and network settings, which you specify in the networking panes of Server Assistant. You can also specify the settings using the `ipmitool` command-line tool in Terminal.

Local and Remote Software Setup

If you connect a display and keyboard to the Xserve, you can use them to finish the server software setup process locally.

To set up the Xserve without a display or keyboard, you can install and open the Server Assistant application, Apple Remote Desktop, or VNC viewer software on another computer that can connect to the Xserve and set it up remotely. For information, see *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

Serial Number for Remote Setup

To use Server Assistant to set up the Xserve remotely, you need to know the first 8 characters of the Xserve hardware serial number.

To find the Xserve serial number:

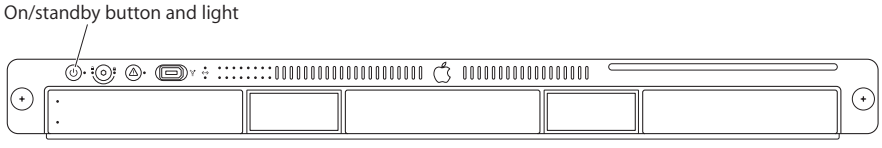
- Slide out the system information tag from the back panel by pulling the small tab.

Setting Up More than One Xserve

If you are setting up more than one or two Xserve systems, you should learn about Mac OS X Server configuration methods that simplify the task of setting up multiple servers. See the chapter about initial server setup in *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

Starting the Xserve

- Press the on/standby button at the left end of the front panel.



The power indicator light turns on and the Xserve starts up. Status lights on the front panel indicate network, processor, and drive module activity.

If this is the first time you have turned on the Xserve, be sure to see "Turning On the Xserve for the First Time" on page 10.

Remote Startup

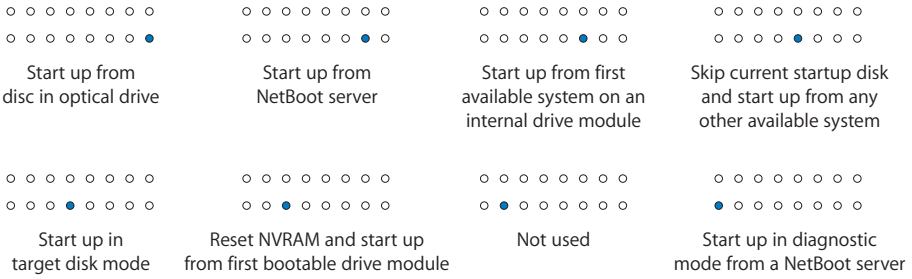
You can start up an Xserve in a remote location using the Server Monitor application. For information, see Server Monitor Help.

Choosing a Startup Method from the Front Panel

You can use the Xserve front panel controls to choose from alternative startup methods that might be helpful in special circumstances.

To choose a startup method from the front panel:

1. With the power off, hold in the system identifier button while you press the on/standby button.
2. Continue to hold in the system identifier button until the top row of blue lights blinks sequentially.
3. Release the system identifier button, and then press it again repeatedly to turn on the light that corresponds to your chosen startup method:


Start up from disc in optical drive
Start up from NetBoot server
Start up from first available system on an internal drive module
Skip current startup disk and start up from any other available system
Start up in target disk mode
Reset NVRAM and start up from first bootable drive module
Not used
Start up in diagnostic mode from a NetBoot server

4. When you have made your choice, hold in the system identifier button until all lights in the top row are on, and then release.

   The Xserve starts up using the chosen method.

Shutting Down the Xserve

There are several ways you can shut down an Xserve.

Before You Shut Down the Xserve

If the Xserve is hosting services provided by Mac OS X Server, open Server Monitor and stop the services.

Shutting Down the Xserve with a Keyboard and Display

- In the Finder, choose Apple () > Shutdown.

Shutting Down the Xserve Remotely

To shut down an Xserve with no connected keyboard and display, or an Xserve in a remote location, you can use either the Server Monitor application or the command line.

To shut down the Xserve using Server Monitor:

- Open the Server Monitor application, select the Xserve in the list, and click Shutdown.

To shut down the Xserve from the command line:

- Open Terminal, log in to the Xserve using SSH, and enter a shutdown command:

```
$ ssh -l user server
$ shutdown -h now
```

where *user* is the name of an administrator account on the Xserve and *server* is the DNS name or IP address of the Xserve.

For information about the `shutdown` command and other command-line shutdown options, see *Mac OS X Server Command-Line Administration*, available at www.apple.com/server/documentation.

Forcing Shutdown from the Front Panel

If you can't shut down the Xserve using the standard methods, you can force it to shut down by pressing the on/standby button on the front panel until the power light turns off (approximately 5 seconds).

Monitoring the Xserve

3

You can check the status of the Xserve whether you're nearby or in a remote location.

This chapter shows how to check whether the Xserve is operating normally, how to get details if the Xserve detects a problem, how to interpret the hardware status lights, and how to monitor conditions such as the various internal temperatures and power supply voltages.

Checking the Status of Mac OS X Server Services

This chapter is about monitoring Xserve hardware status. For information about software status and how you can use the Server Admin application to check the state of individual services hosted by Mac OS X Server on an Xserve, see the Mac OS X Server documentation (available at www.apple.com/server/documentation).

Local and Remote Monitoring

If you're near the Xserve, you can glance at the status light on the front panel and know immediately if the Xserve has detected a problem. See "Interpreting the Xserve Status Lights" on page 16.

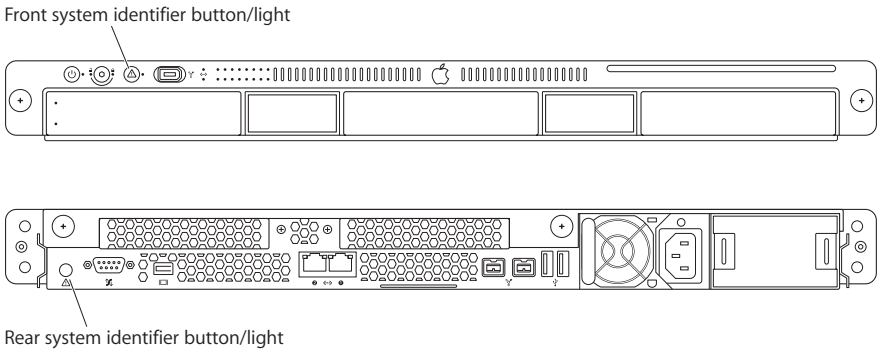
If you connect a display and keyboard, you can open the Server Monitor application to view detailed status information for critical components. See "Using Server Monitor" on page 20.

You can also connect a terminal to the Xserve serial port and manage the Xserve using command-line tools. See "Using the Serial Port" on page 19.

If you're away from the server rack, you can use Server Monitor from an administrator computer to check the Xserve status, or have an email alert sent to interested individuals if the Xserve detects any of a variety of conditions. See "Using Server Monitor" on page 20.

Identifying the Xserve in a Rack

If you have several Xserve systems in a rack, you can use the system identifier lights to identify and flag a particular Xserve. The light can help you return to the right server when you walk around to the other side of the rack. You can also turn on the system identifier light from the Server Monitor application so you can find the Xserve in the rack.



To turn the system identifier light on or off at the Xserve:

- Press the system identifier button on either the front or back panel.

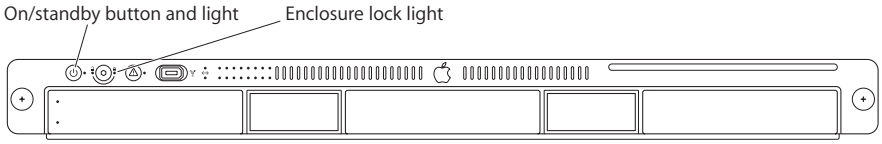
To turn on the system identifier light remotely:

- Open Server Monitor, choose the Xserve in the list, and click the "System identifier light" button.

Interpreting the Xserve Status Lights

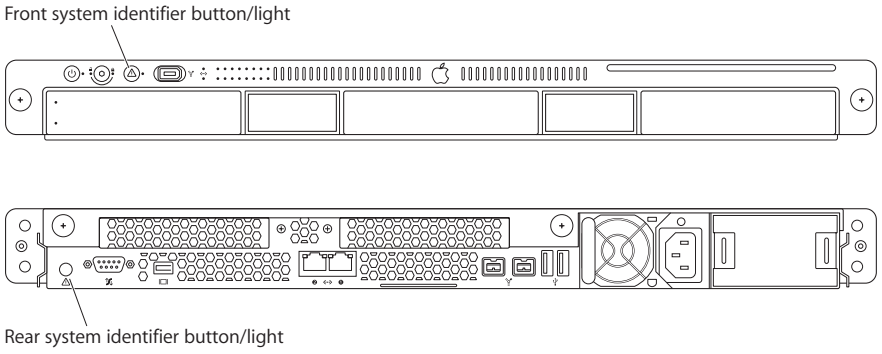
You can check the overall status of the Xserve and the status of some components such as drive modules, network interfaces, and power supplies, just by glancing at the indicator lights on the Xserve.

Overall Xserve Status



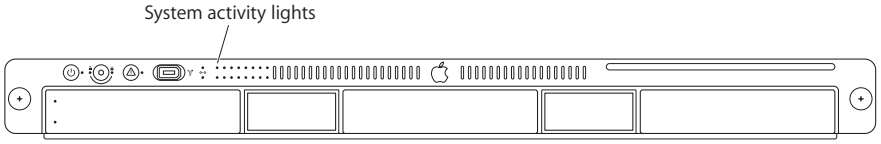
Indicator light	Color	Indicates
Power (front panel)	White	The Xserve is turned on.
	White pulsing	The Xserve is in sleep.
Enclosure lock	Yellow	The lock is engaged. When the enclosure is locked (the light is on), the Xserve might not recognize a keyboard, mouse, or hot-pluggable storage device, depending on a security preference. For information, see "Controlling a Keyboard and Mouse" on page 19.

System Identifier



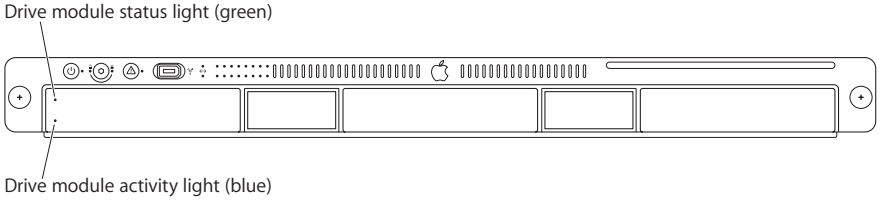
Indicator light	Color	Indicates
System identifier	Yellow flashing	The Xserve has detected an alarm condition. Open Server Monitor for detailed information.
	Yellow	The identifier light has been turned on manually using Server Monitor or by someone pressing the front or rear system identifier button.

Processor Activity



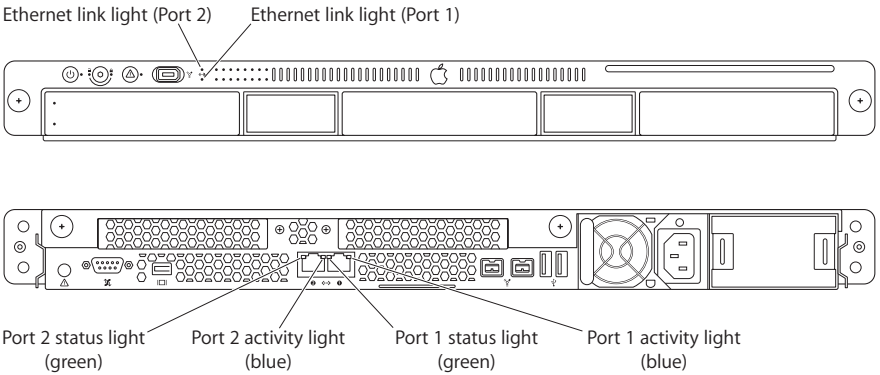
Indicator light	Color	Indicates
System activity	Blue intermittent	Processor activity and load. Each row is divided in half, with four lights representing each of the four processor cores.

Drive Module Status



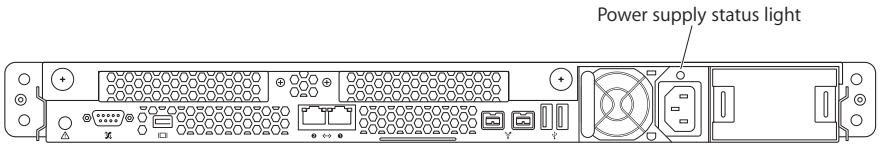
Indicator light	Color	Indicates
Drive module status (upper LED)	Green	The drive is on and working.
	Yellow	The drive is working but has detected a warning condition.
	Red	The drive has failed.
Drive module activity (lower LED)	Off	The Xserve is currently not reading from or writing to the drive.
	Blue intermittent	The Xserve is reading from or writing to the drive. Don't remove the drive if this light is flashing. For information, see the section about replacing a drive module in the *Xserve Setup Guide* that comes with the Xserve.

Ethernet Link Status


Ethernet link light (Port 2)
Ethernet link light (Port 1)
Port 2 status light (green)
Port 2 activity light (blue)
Port 1 status light (green)
Port 1 activity light (blue)

Indicator light	Color	Indicates
Ethernet link status (front panel)	Green	The cable is connected and the link is good (the Xserve can send and receive). The lower light is for port 1, the upper for port 2.
Ethernet link status (on rear connector)	Green	The link is good (the Xserve can send and receive).
Ethernet activity (on rear connector)	Blue intermittent	The link is active. The light is on while data is being transferred.

Power Supply Status



Indicator light	Color	Indicates
Power supply (rear panel, on power supply)	Green	AC power is available and the supply is providing DC power to the Xserve components. The Xserve is turned on.
	Green blinking	AC power is available but power to Xserve components from this supply is on standby (usually because the Xserve is turned off).
	Red	No AC power is available to this supply from the power cord or this power supply has failed. The other power supply is providing power for the Xserve.

Using the Serial Port

You can connect a terminal or a computer running terminal emulation software to the Xserve serial port, and then monitor the system using command-line tools.

About Terminal Emulation Software

You can use a terminal emulation application such as ZTerm running on another computer to communicate through the Xserve serial port. You can't use the Terminal application that comes with Mac OS X to communicate with the serial port.

You must configure the terminal or terminal emulation software to operate at:

- 57.6 KB/s using 8 data bits with no parity

Connecting to the Serial Port

You can use a 9-pin serial null modem cable with a serial-to-USB adapter to connect a Macintosh computer to the serial port.

For information about the pin assignments for the serial port connector, see the specifications appendix in the printed *Xserve Setup Guide* that comes with the Xserve.

About the Command-Line Tools

For information about using command-line tools to check the status of the Xserve, see *Mac OS X Server Command-Line Administration*, available at www.apple.com/server/documentation.

Controlling Physical Access to the Xserve

You can use the enclosure lock on the Xserve to

- Prevent removal of drive modules
- Prevent opening the top cover
- Disable a connected keyboard, mouse, or other USB device by setting a system preference

Controlling a Keyboard and Mouse

You can choose whether the enclosure lock disables a connected keyboard and mouse.

To disable the keyboard and mouse:

- Open System Preferences, click Security, and click the checkbox "Disable mouse and keyboard when Xserve enclosure lock is engaged."

Monitoring the Xserve Remotely

You can check the status of an Xserve from a remote computer using the Server Monitor application or the command line in Terminal.

Using Server Monitor

The Xserve comes with the Server Monitor application. You can find Server Monitor in /Applications/Server/ and on the Admin Tools disc that comes with the Xserve. You can use Server Monitor to:

- Check the current status of the Xserve and its components, including
  - Drive module status
  - Power supply status and system internal voltages
  - Network interface status and activity level
  - Temperatures of critical internal components
  - Cooling fan status
- Review basic Xserve information such as
  - Uptime
  - Mac OS X Server version running on the Xserve
  - Amount and type of memory installed in each slot
  - Model and capacity of each drive module
- Shut down, start up, or restart the Xserve
- Generate an Apple System Profiler report for the Xserve
- Send email alerts in response to changes in the status of the Xserve

You can run Server Monitor on the Xserve or on any computer that can connect to the same network.

Connecting to the Xserve

To add an Intel-based Xserve to the server list in Server Monitor, you use the network address, user name, and password of the lights-out management processor in the Xserve. The lights-out management processor has its own administrator user name, password, and network settings, which you specify in the networking panes of Server Assistant or using the `ipmitool` command-line tool in Terminal.

For information about using Server Monitor, see the Server Monitor onscreen help.

Using the Command Line

For information about using SSH to connect to a remote Xserve and using command-line tools to check the status of the Xserve, see *Mac OS X Server Command-Line Administration*, available at www.apple.com/server/documentation.

Updating or Installing Software on the Xserve

4

There are several ways to update or install server software on the Xserve.

The Xserve comes with Mac OS X Server installed on the drive module in drive bay 1.

To update the server software, you can use:

- The Software Update pane of System Preferences
- The `softwareupdate` command-line tool

If you need to reinstall the server software, you can use any of these methods:

- Install from the Mac OS X Server installation disc (included with the Xserve) in the Xserve optical drive.
- Install the software over the network, using a NetBoot image or the Apple Software Restore (ASR) command-line tool.
- Start up the Xserve from the optical drive and control installation from another computer using Apple Remote Desktop (ARD) or other VNC viewer software.
- Move the drive module to another Xserve, install the software on that system, and then return the drive module.
- Start up the Xserve in target disk mode and use a FireWire cable to connect a MacBook Pro, MacBook, or other Mac and install the software.
- Connect a computer to the Xserve serial port and use the command line to install the server software.

Choosing the Best Method

For information that will help you choose the best Mac OS X Server installation and configuration method for your server environment, see the installation and setup sections of *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

Getting the Latest Software Updates

If the Xserve is connected to the Internet, you can download and install the latest software updates from Apple. If the Xserve is on a private network, you can download updates to a computer that is connected to the Internet and then copy the updates to the Xserve and install them.

To check for and install updates:

- Open System Preferences and click Software Update.

On an Xserve without a display or keyboard:

- Use Apple Remote Desktop, or use Terminal and SSH to connect to the Xserve from an administrator computer and run the `softwareupdate` command-line tool. For information see *Mac OS X Server Command-Line Administration*, available at www.apple.com/server/documentation.

Reinstalling Server Software

The following sections show how to install Mac OS X Server on the Xserve

- Using a keyboard, display, and the Mac OS X Server installation disc
- Using a NetBoot server to install over the network
- Using Apple Remote Desktop or other VNC viewer software
- Using another Xserve to install on a swapped drive module
- Using another Mac to install on the Xserve in target disk mode
- Using commands over the serial port to install from the Xserve optical drive

Using a Keyboard, Display, and the Mac OS X Server Installation Disc

This is a straightforward way to install Mac OS X Server on an Xserve that has a display and keyboard connected.

1. Insert the Mac OS X Server installation disc in the Xserve optical drive and double-click the install icon.
2. In the authentication window, enter an administrator password and click OK.

   The Xserve restarts from the installation disc and the Server Setup application appears.

   For detailed information about installing Mac OS X Server on the Xserve, including information about setting up and using an administrator computer so you can install on an Xserve that doesn't have a display or keyboard, see *Mac OS X Getting Started* on the Admin Tools disc that comes with the Xserve.

Using a NetBoot Server to Install over the Network

You can use a remote computer to install server software on one Xserve or to automate the process of installing on many Xserve systems. For details, see *Mac OS X Getting Started* on the Admin Tools disc that comes with the Xserve and *Mac OS X Server System Image Administration* at www.apple.com/server/documentation.

Using Apple Remote Desktop

Apple Remote Desktop (ARD) is enabled when you start up the Xserve using the Mac OS X Server installation disc, so you can perform the installation from another computer running Apple Remote Desktop or other VNC viewer software. For details, see *Mac OS X Getting Started* on the Admin Tools disc that comes with the Xserve.

Using Another Xserve to Install on a Swapped Drive Module

This is a simple method for installing or restoring software, but you must have a second Xserve with a keyboard and display connected to it. In this method, you move the startup drive to another Xserve, install the software using that second system, and then return the drive to the original Xserve.

Important: Use only a current model Intel-based Xserve to perform the installation.

To install from a second Xserve:

1. Shut down the first Xserve (the one you want to install the software on) and remove its drive module.
2. On the second Xserve (the one you'll use to install the software), unmount and remove one of the drive modules (or a blank module) and insert the drive module from the first Xserve.

   Be sure you don't remove the startup drive module from the second Xserve.
3. Insert the Mac OS X Server installation disc in the optical drive of the second Xserve and double-click the installer icon.
4. In the authentication window, enter an administrator password and click OK.

   The second Xserve restarts from the installation disc.
5. When installation is complete, the Server Setup application appears. Quit this application by choosing File > Quit and confirm that you want to shut down the second Xserve.
6. Hold down the Option key, restart the second Xserve, and select its regular startup disk from the icons onscreen.

   Note: Use the Startup Disk pane in System Preferences to set the startup disk for future restarts.
7. Return the drive module with the newly installed software to the first Xserve and restart it.

   Don't forget to replace the drive module or the blank module you removed from the second Xserve.

Using Another Mac to Install on the Xserve in Target Disk Mode

You can also install software from another Intel-based Mac or Xserve onto the Xserve in target disk mode. The computer you connect must have a FireWire port, an optical drive, and use an Intel processor.

Note: The default name of the Xserve startup volume is Server HD. If you connect another server to the Xserve, you may want to change the name of its startup volume temporarily to avoid having two disks with that name when you install.

To put the Xserve into target disk mode and connect a Mac to it:

1. Remove any FireWire devices that are connected to the Xserve.
2. Use the front panel to start up the Xserve in target disk mode. See "Choosing a Startup Method from the Front Panel" on page 12 for instructions.
3. Connect a MacBook or other Mac to the FireWire port on the Xserve front panel.
4. Turn on the connected computer and insert the Mac OS X Server installation disc in its optical drive.

   The Xserve drive volumes mount on the connected computer.
5. Begin the installation process from the installation disc and install on a mounted volume of the Xserve installation drive (that is, the volume on the Xserve that will be the system's startup disk).

   Note: You can use either Server Assistant or the Terminal application and command-line tools to control the installation.

   See *Mac OS X Server Command-Line Administration*, available at www.apple.com/server/documentation, for information about using command-line tools with the Terminal application.

Using Commands over the Serial Port to Install from the Optical Drive

Another way to install Mac OS X Server on the Xserve without a keyboard or display is to use the Xserve serial port and optical drive.

To use the serial port and command line to install:

1. Connect a terminal or a computer running terminal emulation software to the serial port on the back of the Xserve.
2. Insert the Mac OS X Server installation disc in the Xserve optical drive.
3. Use the front panel controls to start up the Xserve from the optical drive. For information, see "Choosing a Startup Method from the Front Panel" on page 12.

   The Xserve starts up from the disc in the optical drive and a login prompt appears in the terminal window.
4. Log in as the user "root" with the password consisting of the first 8 characters of the Xserve serial number.
5. If necessary, use the `diskutil` tool to erase, format, or partition the drive you plan to install Mac OS X Server on. For help, type the command without any parameters:

   ```
   $ diskutil
   ```
6. Switch to the directory on the installation disc that contains the install packages.

   ```
   $ cd /System/Installation/Packages
   ```
7. Run the `installer` tool, specifying the Mac OS X Server metapackage:

   ```
   $ installer -pkg ./OSInstall.mpkg -target /Volumes/volume -verboseR
   ```

   where *volume* is the name of the volume where you want to install the software.

   When the installation finishes, you can use an administrator computer to run Server Assistant and configure the Xserve, or take advantage of the autosetup features of Mac OS X Server. For information, see *Mac OS X Server Getting Started* on the Admin Tools disc that comes with the Xserve.

Troubleshooting

Look here for solutions to some common problems you might encounter while working with the Xserve and for information about using Apple Xserve Diagnostics to test the Xserve hardware.

This appendix offers solutions to some problems you might encounter using the Xserve. It also includes information about Apple Xserve Diagnostics software, which you can use to test the Xserve hardware.

If You Don't Find a Solution

If you don't find a solution to a problem here, check the Apple support website at www.apple.com/support, the Xserve discussions at discussions.apple.com, or the late-breaking news topics in Mac OS X Server Help.

Problems and Solutions

If the Xserve doesn't start up

Try starting up from the Mac OS X Server disc that comes with the Xserve. For information about startup alternatives, see Chapter 2.

If the Xserve doesn't start up and all 16 system activity lights flash continuously

A memory DIMM is bad.

If the system identifier light is flashing

The Xserve has detected a problem. To find out what's wrong, open the Server Monitor application on either the Xserve or a remote administrator computer.

If there is no image on the connected display or the display appears frozen

Make sure the enclosure is not locked. If you connect a display to a running Xserve, the image on the display may be garbled or missing. If this occurs, restart the Xserve. Alternatively, you may be able to adjust the display image using a remote computer. Open System Preferences for the Xserve, open the Displays pane, and click Detect Displays.

If you have difficulty removing the cover
Use the enclosure key to make sure the enclosure lock on the front panel is unlocked.

If the Xserve doesn't recognize a peripheral device
When the enclosure lock on the Xserve front panel is locked and the enclosure lock preference in the Security pane of System Preferences is on, the Xserve ignores storage devices, keyboard and mouse, and other peripherals connected to the USB and FireWire ports. The light next to the enclosure lock is on when the lock is engaged.

If you have difficulty removing a drive module
Use the enclosure key to make sure the enclosure lock on the front panel is unlocked.

If the Xserve doesn't recognize a drive module when the Xserve is locked
Occasionally a drive module won't be recognized if the Xserve is locked and the drive module's handle has been opened before the system powered up. If this occurs, unlock the enclosure lock, remove the drive module and replace it, and then close the drive module's handle. If the drive module still isn't recognized, restart the Xserve.

If a drive module light is yellow or red
If the upper LED for a drive module is yellow or red, there is a problem with the drive. If possible, replace the drive. Check the Server Monitor application for information about the drive's status.

If you can see the Xserve on the network but can't access it
If the Xserve is on a closed network and your administrator computer is on both the closed network and another network, your administrator computer defaults to the other network when you try to connect to 169.254.x.x addresses. To correct this, set up a 169.254.x.x address on your administrator computer so it will have a route to the 169.254 (closed) network.

If the hard disk is erased or Xserve software is damaged
Reinstall the Mac OS X Server software. For information about installation methods, see Chapter 4.

Using Apple Xserve Diagnostics Software

The Xserve comes with Apple Xserve Diagnostics software that you can use to test the Xserve hardware. To learn about Apple Xserve Diagnostics, see the user's guide in the Documentation folder on the Admin Tools disc that comes with the Xserve.

Regulatory Compliance Information

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

Shielded Cable Statement & Modification Statement

This product was tested for EMC compliance under conditions that included the use of Apple peripheral devices and Apple shielded cables and connectors between system components. It is important that you use Apple peripheral devices and shielded cables and connectors between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices. You can obtain Apple peripheral devices and the proper shielded cables and connectors through an Apple-authorized dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

Important: Important Changes or modifications to this product not authorized by Apple Computer, Inc., could void the EMC compliance and negate your authority to operate the product.

Industry Canada Statement

Complies with the Canadian ICES-003 Class A specifications.Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

VCCI Class A Statement

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

European Community

Complies with European Directive 89/336/EEC.

CISPR 22 & EN55022 Statement

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

Taiwan Class A Warning

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Korea Class A Warning

기종별	사용자 안내문
A급기기	이 기기는 업무용으로 전자파적합등록을 한 기기로서 판매자 또는 사용자가 이 점을 주의하시기 바라며 만약 잘못 판매 또는 구입하였을 경우에는 가정용으로 교환하시기 바랍니다.

China Class A Warning

声明
此为A级产品，在生活环境中，该产品可能会造成无线电干扰，在这种情况下，可能需要用户对其干扰采取切实可行的措施。

Laser Information

WARNING: Making adjustments or performing procedures other than those specified in your equipment's manual may result in hazardous radiation exposure.

Do not attempt to disassemble the cabinet containing the laser. The laser beam used in this product is harmful to the eyes. The use of optical instruments, such as magnifying lenses, with this product increases the potential hazard to your eyes. For your safety, have this equipment serviced only by an Apple-authorized service provider.

If you have an internal Apple CD-ROM, DVD-ROM, or DVD-RAM drive in your computer, your computer is a Class 1 laser product. The Class 1 label, located in a user-accessible area, indicates that the drive meets minimum safety requirements. A service warning label is located in a service-accessible area. The labels on your product may differ slightly from the ones shown here.

Class 1 label

Service warning label

High-Risk Activities Warning

This computer system is not intended for use in the operation of nuclear facilities, aircraft navigation or communications systems, or air traffic control machines, or for any other uses where the failure of the computer system could lead to death, personal injury or severe environmental damage.

Disposal and Recycling Information

Dispose of your Xserve and its battery according to your local environmental laws and guidelines.

For information about Apple's recycling program, go to www.apple.com/environment.

European Union

The symbol above means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Battery Disposal Information

When replacing the internal battery, dispose of the spent battery according to your local environmental laws and guidelines.

California: The coin cell battery in your Xserve contains perchlorates. Special handling and disposal may apply. Refer to www.dtsc.ca.gov/hazardouswaste/perchlorate.

Nederlands: Gebruikte batterijen kunnen worden ingeleverd bij de chemokar of in een speciale batterijcontainer voor klein chemisch afval (kca) worden gedeponeerd.

Deutschland: Das Gerät enthält Batterien. Diese gehören nicht in den Hausmüll. Sie können verbrauchte Batterien beim Handel oder bei den Kommunen unentgeltlich abgeben.Um Kurzschlüsse zu vermeiden, kleben Sie die Pole der Batterien vorsorglich mit einem Klebestreifen ab.

Taiwan:

廢電池請回收